

## EAST Search History

| Ref # | Hits   | Search Query   | DBs   | Default Operator | Plurals | Time Stamp       |
|-------|--------|--|---|------------------|---------|------------------|
| L3    | 6      | ("2001/0008309").URPN.   | USPAT   | OR               | ON      | 2006/06/21 15:19 |
| L4    | 3023   | "interconnection structure"  | USPAT   | OR               | ON      | 2006/06/21 15:19 |
| L5    | 270    | "multilayer interconnection structure"   | USPAT   | OR               | ON      | 2006/06/21 16:00 |
| L6    | 173    | 5 and @pd<"20021218"   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>IBM_TDB | OR               | ON      | 2006/06/21 15:28 |
| L7    | 144    | flipchip and @pd<"20021218"  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>IBM_TDB | OR               | ON      | 2006/06/21 15:57 |
| L8    | 1      | 7 and "multilayer interconnection"   | USPAT   | OR               | ON      | 2006/06/21 15:31 |
| L9    | 2100   | 4 and @pd<"20021218"   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>IBM_TDB | OR               | ON      | 2006/06/21 15:58 |
| L10   | 1797   | 9 and (hole or via or plug)  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>IBM_TDB | OR               | ON      | 2006/06/21 15:29 |
| L11   | 943    | 10 and (multichip or chip)   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>IBM_TDB | OR               | ON      | 2006/06/21 15:29 |
| L12   | 578    | @pd<"20021218" and "multilayer interconnection"  | USPAT   | OR               | ON      | 2006/06/21 15:38 |
| L13   | 1      | 10/803333  | USPAT   | OR               | ON      | 2006/06/21 15:38 |
| L14   | 0      | "10785528"   | USPAT   | OR               | ON      | 2006/06/21 15:38 |
| L15   | 1      | "10/785528"  | USPAT   | OR               | ON      | 2006/06/21 15:42 |
| L16   | 6      | ((("20020180061") or ("20020027282") or ("6294741") or ("5691041") or ("5434751") or ("5527741"))).PN. | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>IBM_TDB | OR               | OFF     | 2006/06/21 15:43 |
| L17   | 186430 | ("438").CLAS.  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>IBM_TDB | OR               | OFF     | 2006/06/21 15:57 |

## EAST Search History

|     |        |  |   |    |     |                  |
|-----|--------|--|---|----|-----|------------------|
| L18 | 136893 | 17 and @pd<"20021218"                                      | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>IBM_TDB | OR | ON  | 2006/06/21 15:58 |
| L19 | 71     | 18 and "multilayer interconnection structure"              | USPAT   | OR | ON  | 2006/06/21 16:00 |
| S1  | 11458  | "multichip module" or "MCM"                                | US-PGPUB;<br>USPAT                                    | OR | ON  | 2006/02/23 08:51 |
| S2  | 13201  | "multichip module" or "MCM"                                | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>IBM_TDB | OR | ON  | 2005/09/01 12:22 |
| S3  | 1483   | S2 and "insulating layer"                                  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>IBM_TDB | OR | ON  | 2006/02/07 09:33 |
| S4  | 48     | S3 and "multilayer interconnection"                        | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>IBM_TDB | OR | ON  | 2005/09/01 12:25 |
| S5  | 7      | S4 and "bonding pads"                                      | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>IBM_TDB | OR | ON  | 2005/09/01 12:23 |
| S6  | 3      | S5 and plugs   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>IBM_TDB | OR | ON  | 2005/09/01 12:24 |
| S7  | 6386   | ((438/106,107,108) or (257/516,678, 734,758)).CCLS.        | USPAT;<br>USOCR                                       | OR | OFF | 2005/09/01 12:52 |
| S8  | 427    | S7 and ("multichip module" or "mcm")                       | US-PGPUB;<br>USPAT                                    | OR | ON  | 2005/09/01 12:26 |
| S9  | 8933   | S7 and "multichip module" or "mcm"                         | US-PGPUB;<br>USPAT                                    | OR | ON  | 2005/09/01 12:27 |
| S10 | 842    | S9 and "bonding pads"                                      | US-PGPUB;<br>USPAT                                    | OR | ON  | 2005/09/01 12:27 |
| S11 | 122    | S10 and plugs  | US-PGPUB;<br>USPAT                                    | OR | ON  | 2005/09/01 12:33 |
| S12 | 324    | (mcm or multichip or multi adj chip) with "module package" | US-PGPUB;<br>USPAT                                    | OR | ON  | 2005/09/01 12:34 |

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|     |         |   |   |    |    |                  |
|-----|---------|---|---|----|----|------------------|
| S13 | 339     | (mcm or multichip or multi adj chip) with "module package"  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>IBM_TDB | OR | ON | 2005/09/01 12:34 |
| S14 | 4531256 | S13 and (substrate with "insulating layer" with "multilayer interconnection" with plugs with "bonding pads")I | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>IBM_TDB | OR | ON | 2005/09/01 12:37 |
| S15 | 0       | S13 and substrate with "insulating layer" with "multilayer interconnection" with plugs with "bonding pads" I  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>IBM_TDB | OR | ON | 2005/09/01 12:38 |
| S16 | 349556  | S13 and substrate on "insulating layer"   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>IBM_TDB | OR | ON | 2005/09/01 12:38 |
| S17 | 294     | S13 and (substrate on "insulating layer" )  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>IBM_TDB | OR | ON | 2005/09/01 12:39 |
| S18 | 294     | S13 and ("insulating layer" on substrate)   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>IBM_TDB | OR | ON | 2005/09/01 12:39 |
| S19 | 34      | S18 and ("multilayer interconnection" on "insulating layer")  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>IBM_TDB | OR | ON | 2006/02/07 09:42 |
| S20 | 915     | S9 and "insulating layer"   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>IBM_TDB | OR | ON | 2005/09/01 12:45 |
| S21 | 35      | S20 and "multilayer interconnection"  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>IBM_TDB | OR | ON | 2006/02/07 09:42 |
| S22 | 460     | S20 and "interconnection"   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>IBM_TDB | OR | ON | 2005/09/01 12:45 |

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|     |       |  |   |    |     |                  |
|-----|-------|--|---|----|-----|------------------|
| S23 | 128   | S22 and "bonding pads"                                 | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>IBM_TDB | OR | ON  | 2005/09/01 12:46 |
| S24 | 26    | S23 and plugs  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>IBM_TDB | OR | ON  | 2005/09/01 12:46 |
| S25 | 110   | S23 and via  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>IBM_TDB | OR | ON  | 2005/09/01 12:46 |
| S26 | 25    | S25 and plugs  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>IBM_TDB | OR | ON  | 2005/09/01 12:46 |
| S27 | 13602 | ((438/106,107,108) or (257/516,678,734,758,700)).CCLS. | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>IBM_TDB | OR | OFF | 2006/02/07 09:33 |
| S28 | 9019  | S27 and "multichip module" or "mcm"                    | US-PGPUB;<br>USPAT                                    | OR | ON  | 2005/09/01 12:53 |
| S29 | 10377 | S27 and "multichip module" or "mcm"                    | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>IBM_TDB | OR | ON  | 2005/09/01 13:01 |
| S30 | 941   | S28 and "insulating layer"                             | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>IBM_TDB | OR | ON  | 2005/09/01 12:55 |
| S31 | 36    | S30 and "multilayer interconnection"                   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>IBM_TDB | OR | ON  | 2005/09/01 12:55 |
| S32 | 375   | S27 and "multichip module"                             | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>IBM_TDB | OR | ON  | 2005/09/01 13:01 |

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|     |        |   |   |    |     |                  |
|-----|--------|---|---|----|-----|------------------|
| S33 | 1      | S32 and "second surface" with "third bonding pads"      | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>IBM_TDB | OR | ON  | 2005/09/01 13:02 |
| S34 | 354    | S32 and chips   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>IBM_TDB | OR | ON  | 2005/09/01 13:03 |
| S35 | 9      | S34 and pads with plugs                                 | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>IBM_TDB | OR | ON  | 2005/09/01 13:03 |
| S36 | 0      | S34 and "pads with plugs"                               | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>IBM_TDB | OR | ON  | 2005/09/01 13:03 |
| S37 | 9      | S34 and (pads with plugs)                               | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>IBM_TDB | OR | ON  | 2005/09/01 13:03 |
| S38 | 32     | S34 and (pads and plugs)                                | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>IBM_TDB | OR | ON  | 2005/09/01 13:03 |
| S39 | 13602  | ((438/106,107,108) or (257/516,678, 734,758,700)).CCLS. | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>IBM_TDB | OR | OFF | 2005/09/01 15:31 |
| S40 | 375    | S39 and "multichip module"                              | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>IBM_TDB | OR | ON  | 2005/09/01 15:31 |
| S41 | 151305 | "insulating layer"                                      | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>IBM_TDB | OR | ON  | 2005/09/01 16:06 |
| S42 | 211    | S41 and "multilayer interconnection structure"          | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>IBM_TDB | OR | ON  | 2005/09/02 13:32 |

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|     |         |   |   |    |    |                  |
|-----|---------|---|---|----|----|------------------|
| S43 | 17      | S42 and "bonding pads"  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>IBM_TDB | OR | ON | 2005/09/01 16:06 |
| S44 | 64      | S42 and chip  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>IBM_TDB | OR | ON | 2005/09/01 16:13 |
| S45 | 55      | S42 and plug  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>IBM_TDB | OR | ON | 2005/09/01 16:17 |
| S46 | 53      | S40 and ((passive and active) with<br>(device or chip))   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>IBM_TDB | OR | ON | 2005/09/01 16:17 |
| S47 | 951008  | semiconductor   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>IBM_TDB | OR | ON | 2005/09/02 13:32 |
| S48 | 467199  | S47 and substrate   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>IBM_TDB | OR | ON | 2005/09/02 13:33 |
| S49 | 2535567 | S48 and insulating layer  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>IBM_TDB | OR | ON | 2005/09/02 13:34 |
| S50 | 66495   | S48 and "insulating layer"  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>IBM_TDB | OR | ON | 2005/09/02 13:34 |
| S51 | 166     | S50 and "multilayer interconnection<br>structure"   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>IBM_TDB | OR | ON | 2005/09/02 13:35 |
| S52 | 22      | S51 and ("conductive plugs" or<br>"conductive paste" or "conductive<br>material fills via holes") | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>IBM_TDB | OR | ON | 2005/09/02 13:46 |

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|     |       |   |   |    |     |                  |
|-----|-------|---|---|----|-----|------------------|
| S53 | 4     | S52 and "bonding pads"                                    | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>IBM_TDB | OR | ON  | 2005/09/02 13:36 |
| S54 | 78    | "multichip substrate"                                     | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>IBM_TDB | OR | ON  | 2005/09/02 13:55 |
| S55 | 13    | S54 and "insulating layer"                                | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>IBM_TDB | OR | ON  | 2005/09/02 13:58 |
| S56 | 289   | "multilayer interconnection" with<br>"integrated circuit" | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>IBM_TDB | OR | ON  | 2005/09/02 13:59 |
| S57 | 77    | S56 and "insulating layer"                                | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>IBM_TDB | OR | ON  | 2005/09/02 14:05 |
| S58 | 16    | S57 and plugs   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>IBM_TDB | OR | ON  | 2005/09/02 14:00 |
| S59 | 13201 | "multichip module" or "MCM"                               | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>IBM_TDB | OR | ON  | 2005/09/02 14:05 |
| S60 | 78    | S59 and "multilayer interconnection"                      | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>IBM_TDB | OR | ON  | 2005/09/02 14:06 |
| S61 | 48    | S60 and "insulating layer"                                | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>IBM_TDB | OR | ON  | 2005/09/02 15:32 |
| S62 | 4606  | (257/778,777,685,686,737,780).CCLS.                       | USPAT;<br>USOCR                                       | OR | OFF | 2005/09/02 15:33 |
| S63 | 2668  | (257/778,777).CCLS.                                       | USPAT;<br>USOCR                                       | OR | OFF | 2005/09/02 15:35 |

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|     |       |   |   |    |     |                  |
|-----|-------|---|---|----|-----|------------------|
| S64 | 18323 | flip adj chip   | US-PGPUB;<br>USPAT                                    | OR | ON  | 2005/09/02 15:35 |
| S65 | 1347  | S63 and flip adj chip   | US-PGPUB;<br>USPAT                                    | OR | ON  | 2005/09/02 15:36 |
| S66 | 1347  | S63 and "flip chip"   | US-PGPUB;<br>USPAT                                    | OR | ON  | 2006/02/23 15:25 |
| S67 | 156   | S66 and interposer  | US-PGPUB;<br>USPAT                                    | OR | ON  | 2005/09/02 15:50 |
| S68 | 2677  | (257/778,777).CCLS.   | USPAT;<br>USOCR                                       | OR | OFF | 2005/09/06 09:42 |
| S69 | 0     | S68 and MCM with "package substrate" with "integrated circuit chip"   | US-PGPUB;<br>USPAT                                    | OR | ON  | 2005/09/06 09:42 |
| S70 | 6     | S68 and (MCM with "integrated circuit chip")  | US-PGPUB;<br>USPAT                                    | OR | ON  | 2005/09/06 09:45 |
| S71 | 2279  | S68 and ("integrated circuit chip" with package substrate)  | US-PGPUB;<br>USPAT                                    | OR | ON  | 2005/09/06 09:46 |
| S72 | 12    | S68 and ("integrated circuit chip" with "package substrate")  | US-PGPUB;<br>USPAT                                    | OR | ON  | 2005/09/06 13:41 |
| S73 | 7     | ((("4394712") or ("4807021") or ("4897708") or ("4954875") or ("5202754") or ("5229647") or ("5767001"))).PN. | USPAT;<br>USOCR                                       | OR | OFF | 2005/09/06 14:16 |
| S74 | 7     | ((("5065505") or ("5396403") or ("5477082") or ("5977640") or ("6075287") or ("6133637") or ("6150724"))).PN. | USPAT;<br>USOCR                                       | OR | OFF | 2005/09/06 14:17 |
| S75 | 289   | "multilayer interconnection" with "integrated circuit"  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>IBM_TDB | OR | ON  | 2005/09/06 15:31 |
| S76 | 3317  | "multilayer interconnection"  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>IBM_TDB | OR | ON  | 2006/02/23 08:53 |
| S77 | 6     | S76 and "one integrated circuit device"   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>IBM_TDB | OR | ON  | 2005/09/06 15:33 |
| S78 | 4     | S76 and "includes integrated circuit"   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>IBM_TDB | OR | ON  | 2005/09/06 15:35 |



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|     |       |   |   |    |     |                  |
|-----|-------|---|---|----|-----|------------------|
| S79 | 0     | "multilayer interconnection structure includes integrated circuit"    | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>IBM_TDB | OR | ON  | 2005/09/06 15:36 |
| S80 | 0     | "integrated circuit in a multilayer interconnection structure"        | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>IBM_TDB | OR | ON  | 2005/09/06 15:36 |
| S81 | 0     | "integrated circuit device in a multilayer interconnection structure" | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>IBM_TDB | OR | ON  | 2005/09/06 15:39 |
| S82 | 51911 | "integrated circuit device"   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>IBM_TDB | OR | ON  | 2005/09/06 15:39 |
| S83 | 92    | S82 and "multilayer interconnection structure"                        | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>IBM_TDB | OR | ON  | 2005/09/06 15:40 |
| S84 | 2677  | (257/778,777).CCLS.   | USPAT;<br>USOCR                                       | OR | OFF | 2005/09/07 10:31 |
| S85 | 1352  | S84 and "flip chip"   | US-PGPUB;<br>USPAT                                    | OR | ON  | 2005/09/07 10:31 |
| S86 | 156   | S85 and interposer  | US-PGPUB;<br>USPAT                                    | OR | ON  | 2005/09/07 10:31 |
| S87 | 1     | S86 and "multilayer interconnection"                                  | US-PGPUB;<br>USPAT                                    | OR | ON  | 2005/09/07 10:34 |
| S88 | 5     | S85 and "multilayer interconnection"                                  | US-PGPUB;<br>USPAT                                    | OR | ON  | 2005/09/07 13:33 |
| S89 | 4     | S88 and insulating  | US-PGPUB;<br>USPAT                                    | OR | ON  | 2005/09/07 13:33 |
| S90 | 2677  | (257/778,777).CCLS.   | USPAT;<br>USOCR                                       | OR | OFF | 2005/09/08 08:56 |
| S91 | 1352  | S90 and "flip chip"   | US-PGPUB;<br>USPAT                                    | OR | ON  | 2005/09/08 08:56 |
| S92 | 156   | S91 and interposer  | US-PGPUB;<br>USPAT                                    | OR | ON  | 2005/09/08 08:56 |
| S93 | 0     | S92 and substrate adj3 thickness adj3 "10 to 500 micron meter"        | US-PGPUB;<br>USPAT                                    | OR | ON  | 2005/09/08 08:56 |
| S94 | 152   | S92 and substrate thickness adj3 "10 to 500 micron meter"             | US-PGPUB;<br>USPAT                                    | OR | ON  | 2005/09/08 09:00 |

## EAST Search History

|      |       |  |                 |    |     |                  |
|------|-------|--|-----------------|----|-----|------------------|
| S95  | 0     | "thickness of semiconductor substrate" with "10 to 500 micron meter" | US-PGPUB; USPAT | OR | ON  | 2005/09/08 09:02 |
| S96  | 0     | "thickness of semiconductor substrate"                               | US-PGPUB; USPAT | OR | ON  | 2005/09/08 09:02 |
| S97  | 18632 | "thickness substrate"  | US-PGPUB; USPAT | OR | ON  | 2005/09/08 09:02 |
| S98  | 2     | "10 micron meter" with "500 micron meter"                            | US-PGPUB; USPAT | OR | ON  | 2005/09/08 09:04 |
| S99  | 0     | S97 and "10 micron meter" with "500 micron meter"                    | US-PGPUB; USPAT | OR | ON  | 2005/09/08 09:03 |
| S100 | 0     | "10 to 500 micron meter"   | US-PGPUB; USPAT | OR | ON  | 2005/09/08 09:05 |
| S101 | 1     | "substrate thickness" with ""500"" micron meter"                     | US-PGPUB; USPAT | OR | ON  | 2005/09/08 09:05 |
| S102 | 1     | "substrate thickness" with "500 micron meter"                        | US-PGPUB; USPAT | OR | ON  | 2005/09/08 09:05 |
| S103 | 0     | "substrate thickness" with "10 micron meter"                         | US-PGPUB; USPAT | OR | ON  | 2005/09/08 09:05 |
| S104 | 0     | "substrate thickness" with "1150 micron meter"                       | US-PGPUB; USPAT | OR | ON  | 2005/09/08 09:05 |
| S105 | 0     | "substrate thickness" with "150 micron meter"                        | US-PGPUB; USPAT | OR | ON  | 2005/09/08 09:05 |
| S106 | 2677  | (257/778,777).CCLS.  | USPAT; USOCR    | OR | OFF | 2005/09/09 08:20 |
| S107 | 51    | S106 and mcm with "circuit board"                                    | US-PGPUB; USPAT | OR | ON  | 2005/09/09 08:39 |
| S108 | 2     | mcm with ((active and passive) adj chip)                             | US-PGPUB; USPAT | OR | ON  | 2005/09/09 08:40 |
| S109 | 2677  | (257/778,777).CCLS.  | USPAT; USOCR    | OR | OFF | 2005/09/09 08:48 |
| S110 | 2     | S109 and "flip chip" with ((active and passive) adj chip)            | US-PGPUB; USPAT | OR | ON  | 2005/09/09 08:52 |
| S111 | 32    | "flip chip" with ((active and passive) adj chip)                     | US-PGPUB; USPAT | OR | ON  | 2005/09/09 08:53 |
| S112 | 5     | "flip-chip" with ((active and passive) adj chip)                     | US-PGPUB; USPAT | OR | ON  | 2005/09/09 08:56 |
| S113 | 32    | "flip-chip type" with ((active and passive) adj chip)                | US-PGPUB; USPAT | OR | ON  | 2005/09/09 08:58 |
| S114 | 7     | (flip-chip type) with ((active and passive) adj chip)                | US-PGPUB; USPAT | OR | ON  | 2005/09/09 08:59 |
| S115 | 15    | (flip-chip mounting) with ((active and passive) adj chip)            | US-PGPUB; USPAT | OR | ON  | 2005/09/09 09:00 |

## EAST Search History

|          |        |  |   |    |     |                  |
|----------|--------|--|---|----|-----|------------------|
| S11<br>6 | 32     | "flip-chip mounting" with ((active and passive) adj chip)  | US-PGPUB;<br>USPAT                                    | OR | ON  | 2005/09/09 09:00 |
| S11<br>7 | 10     | ((("6504746") or ("6404062") or ("6809421") or ("6356453") or ("6607938") or ("6864588") or ("6239496") or ("6833628") or ("6376917") or ("6737295")).PN.    | USPAT;<br>USOCR                                       | OR | OFF | 2005/09/09 11:19 |
| S11<br>8 | 1      | ("6566232").PN.  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>IBM_TDB | OR | OFF | 2006/02/07 09:25 |
| S11<br>9 | 16231  | ((438/106,107,108,109) or (257/516, 678,734,758,700,777)).CCLS.  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>IBM_TDB | OR | OFF | 2006/02/07 09:33 |
| S12<br>0 | 9708   | S119 and "multichip module" or "MCM"   | US-PGPUB;<br>USPAT                                    | OR | ON  | 2006/02/07 09:33 |
| S12<br>1 | 1      | S120 and ("insulating layer" same ((fourth or 4th) adj surface))   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>IBM_TDB | OR | ON  | 2006/02/07 09:35 |
| S12<br>2 | 29     | S120 and (((fourth or 4th) adj surface))   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>IBM_TDB | OR | ON  | 2006/02/07 09:35 |
| S12<br>3 | 3386   | "multilayer interconnection"   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>IBM_TDB | OR | ON  | 2006/02/07 09:42 |
| S12<br>4 | 359824 | ("multilayer interconnection" on "insulating layer")   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>IBM_TDB | OR | ON  | 2006/02/07 09:42 |
| S12<br>5 | 37     | S124 and "third bonding pad"   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>IBM_TDB | OR | ON  | 2006/02/07 09:43 |
| S12<br>6 | 14     | ("4499655"   "4774632"   "4807021"   "5229647"   "5270261"   "5399898"   "5408123"   "5618752"   "5793105"   "5846879"   "5973396").PN. OR ("6809421").URPN. | US-PGPUB;<br>USPAT;<br>USOCR                          | OR | ON  | 2006/02/13 14:18 |

## EAST Search History

|          |        |   |   |    |     |                  |
|----------|--------|---|---|----|-----|------------------|
| S12<br>7 | 1798   | multilevel adj interconnection  | US-PGPUB;<br>USPAT;<br>USOCR                          | OR | ON  | 2006/02/13 14:18 |
| S12<br>8 | 96     | S127 and (bonding adj pad)  | US-PGPUB;<br>USPAT;<br>USOCR                          | OR | ON  | 2006/02/13 14:39 |
| S12<br>9 | 2      | S128 and "fourth surface"   | US-PGPUB;<br>USPAT;<br>USOCR                          | OR | ON  | 2006/02/13 14:19 |
| S13<br>0 | 3      | S127 and (second adj bonding adj pad)   | US-PGPUB;<br>USPAT;<br>USOCR                          | OR | ON  | 2006/02/13 14:22 |
| S13<br>1 | 667    | S127 and (pad)  | US-PGPUB;<br>USPAT;<br>USOCR                          | OR | ON  | 2006/02/13 14:39 |
| S13<br>2 | 108333 | ((257/621,779) or (438/109) or (361/600,679,728,735)).CCLS. or ("174").CLAS.    | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>IBM_TDB | OR | OFF | 2006/02/23 08:52 |
| S13<br>3 | 99     | S132 and "multilayer interconnection"   | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>IBM_TDB | OR | ON  | 2006/02/23 08:53 |
| S13<br>4 | 117    | "conductive plug" near10 substrate near10 "insulating layer"                    | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>IBM_TDB | OR | ON  | 2006/02/23 11:05 |
| S13<br>5 | 15     | S134 and penetrating  | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>IBM_TDB | OR | ON  | 2006/02/23 10:57 |
| S13<br>6 | 8      | "conductive plug" near10 penetrating near10 substrate near10 "insulating layer" | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>IBM_TDB | OR | ON  | 2006/02/23 11:07 |
| S13<br>7 | 3      | "conductive plug" near10 "penetrating substrate"                                | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>IBM_TDB | OR | ON  | 2006/02/23 11:07 |

## EAST Search History

|          |       |                                     |   |    |     |                  |
|----------|-------|-------------------------------------|---|----|-----|------------------|
| S13<br>8 | 14073 | "multichip module" or "MCM"         | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>IBM_TDB | OR | ON  | 2006/02/23 15:25 |
| S13<br>9 | 2427  | S138 and "flip chip"                | US-PGPUB;<br>USPAT                                    | OR | ON  | 2006/02/23 15:25 |
| S14<br>0 | 58    | S139 and "active chip"              | US-PGPUB;<br>USPAT                                    | OR | ON  | 2006/02/23 15:25 |
| S14<br>1 | 29    | S140 and stacking                   | US-PGPUB;<br>USPAT                                    | OR | ON  | 2006/02/23 15:25 |
| S14<br>2 | 6160  | "package substrate"                 | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>IBM_TDB | OR | ON  | 2006/02/24 08:57 |
| S14<br>3 | 424   | MCM and "package substrate"         | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>IBM_TDB | OR | ON  | 2006/02/24 08:57 |
| S14<br>4 | 1     | ("6791193").PN.                     | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>IBM_TDB | OR | OFF | 2006/02/24 10:03 |
| S14<br>5 | 9849  | (257/723,724,725,777,774,778).CCLS. | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>IBM_TDB | OR | OFF | 2006/06/20 11:08 |
| S14<br>8 | 5876  | S145 and @pd<"20021218"             | US-PGPUB;<br>USPAT;<br>USOCR;<br>EPO; JPO;<br>IBM_TDB | OR | ON  | 2006/06/21 15:20 |